

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT
TRANSLATION

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)
Applicant's or agent's file reference 05F052-PCT		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/JP2006/301489	International filing date (day/month/year) 30.01.2006	Priority date (day/month/year) 10.02.2005
International Patent Classification (IPC) or both national classification and IPC		
Applicant SANKEN ELECTRIC CO., LTD.		

<p>1. This opinion contains indications relating to the following items:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the opinion <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application <p>2. FURTHER ACTION</p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p> <p>3. For further details, see notes to Form PCT/ISA/220.</p>

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2006/301489

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:
 the international application in the language in which it was filed
 the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 a sequence listing
 table(s) related to the sequence listing
 - b. format of material
 on paper
 in electronic form
 - c. time of filing/furnishing
 contained in the international application as filed
 filed together with the international application in electronic form
 furnished subsequently to this Authority for the purposes of search
3. In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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International application No.	PCT/JP2006/301489
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1 - 11</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1 - 11</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1 - 11</u>	YES
	Claims	_____	NO

2. Citations and explanations:

Regarding claims 1 to 11

Document 1 (JP 2004-363327 A) and document 2 (JP 2004-221370 A) cited in the ISR do not describe a point regarding "a first region is formed occupying a first proportion with respect to the third semiconductor region to the second semiconductor region at a central side of the semiconductor substrate, wherein a second region, which occupies a second proportion greater than the first proportion with respect to the third semiconductor region to the second semiconductor region, is formed at an outer peripheral side of the semiconductor substrate so as to surround the first region" as in claim 1 of the present application; a point regarding "a third semiconductor region is formed such that a proportion occupying the second semiconductor region thereof along a first direction has a peripheral portion larger than a central portion of the semiconductor substrate and a proportion occupying the second semiconductor region of the third semiconductor region is formed along a second direction orthogonal to the first direction such that a peripheral portion is larger than a central portion of the semiconductor substrate" as in claim 7; a point regarding "the insulating film is provided with a first region having a first thickness formed in a central region of the semiconductor substrate and a second region formed having a second thickness that is thinner than the first region and is formed at a peripheral side of the semiconductor substrate so as to surround the first region" as in claim 10; or a point regarding "the second semiconductor region is provided with a first region formed having a first impurity concentration at a central side of the semiconductor substrate and a second region formed having a second impurity concentration that is lower than the first impurity concentration and that is formed at a peripheral side of the semiconductor substrate so as to surround the first region" as in claim 11, and the inventions of the claims of the present application can be considered to involve novelty and inventive step.